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ABSTRACT

The results, and their implications, of research described in the report "Education Information: Changes in Funds and Priorities Have Affected Production and Quality" are discussed. Prepared by the General Accounting Office (GAO), the above research report covered selected years between 1973 and 1986. High-quality information on education is essential to the tasks of overseeing the use of federal resources, assessing the nation's progress, and identifying areas for improvement. In the last decade, federally sponsored research and statistical and evaluative information have declined dramatically. As less information was produced, there was also a shift from new data production to service-oriented activities. Three statistical series were evaluated: (1) the National Assessment of Educational Progress (NAEP); (2) the Common Core of Data (CCD); and (3) the Fast Response Survey System (FRSS). The NAEP was rated high for relevance, timeliness, adequacy, and impact. The CCD was not rated highly, and the FRSS received mixed reviews. The overall picture is one of many reasons for concern about the production and quality of educational information, due mainly to the following interacting factors: (1) declines in funding; (2) the role of congressional mandates; and (3) changes in leadership and priorities. It is noted that the Department of Education does not share this pessimistic assessment made by the GAO. (SLD)

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Production and Quality of Education Information

Statement of
Eleanor Chelimsky, Director
Program Evaluation and
Methodology Division

Before the
Subcommittee on Select Education
Committee on Education and Labor
House of Representatives

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

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MR. CHAIRMAN AND MEMBERS OF THE COMMITTEE:

It is a pleasure to be here today to report to you on our study of the condition of information on education in the United States. The results I present here come from our report entitled Education Information: Changes in Funds and Priorities Have Affected Production and Quality (GAO/PEMD-88-4). Today, I would like to highlight our central findings and discuss their implications. Our work covered selected years between 1973 and 1986.

I want, in particular, to make three points. The first is that in my opinion, sound information about education is important--even vital--to educational reform and to oversight. The second point is that we have found reason for concern about the production of education data--that is, whether this sound information will be available. The third point is that the reasons for the problems we found are complex. They include lack of resources, but that is not the whole story. Thus, turning the situation around is likely to take time and to require in itself considerable information and monitoring.

The Importance of Information About Education

As you know, although education in this country is a responsibility of the states, the federal government spent nearly $20 billion in fiscal year 1987 to support all levels of education. In 1867, the Congress authorized the creation of a noncabinet Department of Education to obtain information on the condition of education for purposes of identifying emerging needs, determining how well programs are working, and promoting educational improvement, an authorization continued and expanded over the years.[1] I think that today, no less than in 1867, it is critical to have high-quality information for overseeing federal educational resources, assessing the progress the nation has made in improving educational access and quality, and identifying shortfalls yet to be dealt with successfully. By high-quality information, I mean information that is relevant, timely, technically adequate, and usable for policy decisions.

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[1]Although the Department of Education was not made a cabinet department until 1979, we refer to it as the Department of Education.

Reason for Concern: The Production of Information

Federally sponsored research and statistical and evaluative information on education declined dramatically during the past decade. With regard to research, the number of grants and contracts awarded decreased from 476 in 1980 to 168 in 1985. The change from 1980 to 1985 was the most dramatic for the unsolicited proposal program in the National Institute of Education (NIE) because it was cut completely.

Declines in awards for evaluations were also substantial. The high level of activity that began late in the 1970's (80 or more awards annually) peaked at 119 in 1980 and began to drop in 1981, leveling off to between 25 and 28 activities annually. From 1980 to 1985, the decline was 79 percent. The biggest overall decrease followed the passage of block grant legislation, which affected many of the elementary and secondary education programs that had previously received the bulk of the evaluation support and review.

The total number of statistical surveys, planned or conducted by the National Center for Educational Statistics (NCES), now named the Center for Education Statistics (CES), grew by 49 percent (from 37 to 55) between 1974 and 1980.[2] However, between 1980 and 1983,

[2]In the department's October 1985 reorganization, NIE and NCES were discontinued as separate agencies and all their functions and activities were assigned to the five operating units of the Office of Educational Research and Improvement. (The five units are Office of Research, Center for Education Statistics, Programs for

the number of surveys fell by 31 percent, returning to its 1974 aggregate level. In addition, the intervals between statistical data collections increased, and technical support to states for data collection was sharply reduced. For example, over the 9 years we examined, there was a 20-percent decline in annual surveys (which permit detailed analyses of trends) and an 83-percent increase in occasional or one-time surveys.

Concern over the quantity of awards is heightened by three other significant changes.

Shift Away From New Data Collection

First, not only was less information produced: we also found changes in priorities. For the National Institute of Education's portfolio of activities, there was a shift away from new data production to service-oriented activities, such as dissemination of results and the provision of expert witnesses in civil rights cases. Sixty-five percent of NIE's 1980 awards were for new data collection, but only 11 percent of the 1985 awards were dedicated to this function. In our view, this shift was so dramatic that the

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the Improvement of Practice, Information Services, and Library Programs.) CES performs most of the former responsibilities of NCES. And although some NIE responsibilities have been transferred to the new units, the Office of Research now carries out the activities of NIE that we discuss in this statement. Because our review covers the period prior to the departmental reorganization, we refer to each unit by the name applicable during that period--that is, NIE, NCES, and the Office of Planning, Budget, and Evaluation (OPBE).

availability of up-to-date information to disseminate to teachers and other practitioners may be seriously jeopardized.

Fewer Areas Investigated

Second, fewer educational areas were investigated in 1985 than in 1980 through research grants. In 1980, for example, 56 of 293 awards for new data collection went toward studies of special populations, such as minorities and women. In 1985, there were five such studies. Some areas such as learning in nonschool settings and areas identified as "school problems" (including such issues as dropouts and delinquency) received no new data collection funds in 1985; in 1980, there were 33 awards. Even for the topics that have frequently been identified as important areas for educational improvement--for example, improving teacher preparation; strengthening curricula in mathematics, science, and English; more-effective instruction; classroom management and school leadership--there were few awards for new data collection in 1985.

Information Producers Changed

Third, there was a shift among those who carried out the work of producing information, and the procurement process became more constrained. The proportion of research awards made to department-sponsored institutions (for example, laboratories and

national centers) increased substantially from 1980 to 1985. In 1980, those institutions received 25 percent of the awards in three major program areas, compared to 56 percent in 1985. The cumulative result of various shifts in awards is that the majority of the department's information producers were institutions or contractors. This shift is a concern because, while contracts may be the most applicable when there is a specific request for information (for example, a congressionally mandated study) or when continuity in data gathering is necessary (for example, in a statistical series), their use as the predominant vehicle for funding research may be inappropriate. Compared to the grants mechanism, for example, a contract is likely to constrain rather than broaden inquiry.

Reason for Concern: The Quality of Information

Turning to our concern for the soundness or quality of information, we reviewed in-depth evidence regarding four dimensions of quality--relevance, timeliness, technical adequacy, and impact--for three statistical series--the National Assessment of Educational Progress (NAEP), the Common Core of Data (CCD) for elementary and secondary education, and the Fast Response Survey System.

In general, NAEP ranked high on all four dimensions, but it has suffered some decline in relevance and timeliness in adapting to fiscal constraints. In particular, it has been affected by

budgetary declines in two ways. The number of target populations was reduced from five principal groups (9-, 13-, and 17-year-olds in and out of school and adults) to three (9-, 13-, and 17-year-olds who remain in school), and the assessment cycle was altered from annual to biennial, or longer, some content areas only being assessed at 4- and 6-year intervals. This is important because the ability of NAEP to record changes in performance depends on maintaining short intervals between assessments. As an interval increases, the ability to signal changes becomes more limited. Further, many groups, including students younger than 9 years old, are not assessed by NAEP.

The Common Core of Data--a primary source of nationwide information on elementary and secondary institutions--was not rated high on any of the four indicators, although some data elements were found to be adequate. In general, data were not comparable across states, mainly because data elements were reported at different levels of aggregation or were derived from different definitions and data collection procedures. Problems with CCD have long been recognized, but few have been solved. Commendably, the department is currently making efforts to improve some parts of the CCD.

The Fast Response Survey System was rated moderate to high on quality, especially given the low budgets associated with each survey. The system has been responsive to the information needs of

the requesters and has minimized time delays by releasing findings early. Reporting survey procedures could be improved, however. Methods for handling nonresponse and overall response rates were not always reported in sufficient detail to assess the quality of practice.

Complex Influences on Production and Quality

The overall picture, then, is one of many reasons for concern and also of some successes with regard to educational information. In examining the reasons for these problems and successes, we found that resources play a major role but that lack of money was not the only issue.

The fiscal resources for the department increased in current dollars from approximately $6.1 billion in 1973 to $19.5 billion in 1986--an increase of 220 percent, or 38 percent in 1972 dollars. The trends for fiscal support of the production of research and statistical and evaluative information were quite different. Since the mid-1970's, NIE experienced a 79-percent reduction in constant 1972 dollars; NCES experienced a 65-percent reduction; and the Office of Planning, Budget, and Evaluation's resources declined by 64 percent. These reductions are in sharp contrast to the 38-percent increase in the federal investment in education over this same period.

Viewed another way, changes in fiscal resources for education information were more severe than was reported for other federal agencies with similar missions. That is, while the real purchasing power of overall federal research funds grew by 3.7 percent between 1980 and 1984, NIE's funding level declined by 48 percent.

NCES also suffered greater losses in funding than other statistical agencies. While the investment in statistical activity, in general, declined by 18 percent between 1980 and 1984, NCES experienced a 28-percent reduction.

Evaluation also was hard-hit. Funds spent on evaluation contracts declined by 63 percent; in general, resources for evaluation in nondefense federal departments and agencies dropped by 37 percent. Although all three types of information showed larger reductions than similar agencies, the greatest discrepancy was for the research function, followed by evaluation activities.

For research and statistical and evaluative information, the patterns of declines in funding were consistent and precipitous. They paralleled the reductions in awards discussed above. Further, the consistency of decline in resources across these three types of information suggests across-the-board reductions in information rather than a substitution of statistics for either research or evaluation.

The Role of Mandates

The decline in funds interacted with two other factors. First, although all information-gathering activities were affected by budget constraints, congressionally mandated activities received smaller reductions and thereby consumed an increasing share of available resources. About 79 percent of NIE's resources for research in 1984 went to legislatively required activities such as the Educational Resources Information Center (ERIC) and the laboratories and centers, in contrast to 55 percent in 1980.

This shift is important for three reasons. First, while mandates can protect an activity by ensuring a sustained level of support, other activities may be affected by insufficient funding or staffing or both. Information-gathering activities that did not carry a mandate were more vulnerable when faced with fiscal constraints.

Second, specially mandated studies have a large but transient effect on the operations of information-producing agencies. Depending on a study's size or timing, it can consume a substantial amount of a unit's resources, incurring opportunity costs with regard to other activities. The problem is exacerbated when the units experience losses in staff, as we observed.

Third, with regard to quality, mandates alone are not sufficient to ensure that high-quality information will be available when it is needed. For example, the National Vocational Education Data System was mandated in 1976, and after several years it was disapproved by the Office of Management and Budget on the grounds of severe technical problems. Here the system was mandated with little consultation with the department, no resources were specially appropriated, and the time for reporting information back to the Congress proved to be unrealistic.

Changes in Leadership and Priorities

Changes in agency leadership and priorities also powerfully affected the production and quality of information. Each of the information units changed in top management positions during the 1980's. For example, NIE had a total of seven different directors from 1980 to 1986, three of the seven serving as acting director. At least 16 persons served in the five other top management positions, one of which was created in 1984. In six cases, individuals served on an acting basis or as special assistants. NCES and OPBE showed similar patterns.

The consequences of management changes can be found in the operation and priorities of the information-producing units. For example, one identified priority for research at NIE in 1978 was the study of complex learning skills. Many studies have shown that

gaps among students are greatest in these skills and that this is an area where our school system may be falling short. Despite a 3-year effort to develop research proposals in this area--an effort that resulted in 30 proposals being recommended for funding by panels of experts--no awards were made. A change in directors had meant that this was no longer seen as a priority area. In sum, the cycle for research funding (from identification of a priority through the award process to the reporting of results) may take many years, but the tenure of the director is typically less than a year. This is long enough to stop what had been started but not long enough to see initiatives through to completion.

Turning the Situation Around Is Likely to Take Time and Require Data and Monitoring

The situation we have sketched here is complex, and some of the problems--particularly with the statistical information systems--are long-standing. I believe it will be neither quick nor easy to turn the situation around, involving as it does funds, how priorities are set between mandates and discretionary studies, leadership and staffing, and other factors.

This view is not shared by the department. In particular, citing the many organizational changes initiated since 1985, the department believes that our analyses do not reflect the current situation. In fact, its response states that "the department has

taken clear and decisive action to address most of the problems cited in the report" (emphasis added). In support of this claim, the department enumerated how the information portfolio had been augmented and the topical areas broadened.

In my view, it is too early to determine whether the organizational and procedural changes that have been initiated will adequately address the problems we identified in our report--or new ones that the changes might create. For example, we know that the department has funded many new centers and minicenters that may be collecting new data; however, detailed information was not available for us to determine how many awards were directed at remedying the educational disadvantages of various populations, for example. While it is useful to have additional information on the department's recent efforts, assessing whether the information that is to be produced by these activities will be available and high enough in quality requires more fine-grained evidence.

For example, the findings of our report could serve as a partial baseline against which to assess the effects of departmental initiatives to improve the technical adequacy, relevance, and timeliness of the particular statistical activities covered by our review. More generally, the framework for quality we applied could be used as a basis for systematically examining other statistical programs. In reviewing the department's comments on our report, however, we found no mention of any plans to assess progress

empirically. Making plans for a formal evaluation of recent changes would be a most timely and useful endeavor.

For other nonstatistical information-gathering activities, a fundamental part of any assessment of progress is the specification of the appropriate indicators of success. In the case of research, it seems to me that more is needed than a simple list of activities. As our review shows, several types of evidence are needed to determine whether appropriate information is being produced. Phrased as questions, they are, What educational areas are being investigated? What target groups is information being gathered on? Who is responsible for developing the research agenda? What type of procurement process is employed? What fraction of the awards is devoted to new data collection versus support services? Will the new data that are to be produced be sufficient to address important questions raised by the large range of stakeholders in the educational community? Comprehensive descriptive information will provide the needed basis for discussing the implications of various decisions that are made. Where information gaps are uncovered, reprioritization or augmentation could be initiated. Of course, ensuring the technical quality of the research that is funded must remain a high priority as well.

Summary

In summary, we have found serious problems affecting the production of high-quality information on the condition of education. As I said earlier, there is no simple solution to these problems. Insufficient funding is directly associated with some of the declines in information production. But it is unlikely that merely providing more money will allow the department to recover from the losses engendered by the reductions in awards. Further, mandating particular studies will not work unless resources (staff, time, and money) are available. Technical oversight is probably needed to ensure that high-quality information is produced. Finally, broad-based oversight--that takes into account the diversity of information needs of many potential users--concerning priorities on what is to be collected, on whom, and under what type of funding mechanism seems necessary to avoid many of the notable losses in information that we observed.

Mr. Chairman, this concludes my statement. I will be happy to answer any questions the subcommittee may have.